

WHAT IS CLAIMED IS:

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1. A signal receiving device for receiving data hierarchized by a signal transmitting device, the signal receiving device comprising:

10 a layer identifying unit configured to identify data layers transmitted from the signal transmitting device; and

15 a hierarchized data receiving unit configured to select at least one of the identified data layers according to a criteria including at least one of a receiving buffer size of the signal receiving device, calculating capability of the signal receiving device, and a propagating environment characteristic of the signal receiving device, and to receive the selected data layers.

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25 2. The signal receiving device as claimed in claim 1, wherein the hierarchized data receiving unit comprises a selection unit configured to select one or more of the receiving buffer size of the signal receiving device, the calculating capability of the signal receiving device, and the propagating environment of the signal receiving device, for  
30 selecting the identified data layers.

3. A signal transmitting device for  
hierarchizing data to be transmitted and  
5 transmitting the hierarchized data, the signal  
transmitting device comprising:

a hierarchized data transmitting unit  
configured to hierarchize the data to be transmitted  
into a plurality of layers according to at least one  
10 of a number of multiplexed codes in CDMA (Code  
Division Multiple Access), a coding unit of error  
correction codes, and an information block number,  
and to transmit the hierarchized data.

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4. The signal transmitting device as  
claimed in claim 3, further comprising a selection  
20 unit configured to select at least one of the number  
of multiplexed codes, the coding unit of error  
correction codes, and the information block number,  
for dividing the data to be transmitted into a  
plurality of layers.

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5. A communication system, comprising:  
30 a signal transmitting device that  
hierarchizes data to be transmitted and transmits  
the hierarchized data; and

a signal receiving device that receives

the hierarchized data from the transmitting device,  
wherein

the signal transmitting device comprises a  
data hierarchizing and transmitting unit configured  
5 to hierarchize the data to be transmitted into a  
plurality of data layers, and to transmit the data  
layers; and

the signal receiving device comprises:  
a layer identifying unit configured to  
10 identify the data layers transmitted from the signal  
transmitting device; and

a hierarchized data receiving unit  
configured to select the identified data layers  
according to at least one of receiving capability  
15 and a propagating environment of the signal  
receiving device, and to receive the selected data  
layers.

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6. A method of a communication system  
including a signal transmitting device for  
hierarchizing data to be transmitted and  
25 transmitting the hierarchized data, and a signal  
receiving device for receiving the hierarchized data  
from the transmitting device, the method comprising  
the steps of:

dividing, by the signal transmitting  
30 device, the data to be transmitted into a plurality  
of data layers and transmitting the data layers; and  
identifying, by the signal receiving  
device, the data layers transmitted from the signal

transmitting device; and

selecting, by the signal receiving device,  
the identified data layers according to at least one  
of receiving capability and a propagating

5 environment characteristic of the signal receiving  
device, and receiving the selected data layers.